This listing of claims will replace all prior versions, and
listings, of claims in the application:

1   Claim 1 (currently amended): A communications method ~~of~~
2   ~~processing paging information in a communications system~~, the
3   method comprising:
4   operating ~~a first node~~ an access node to receive a data
5   message directed to an end node ~~said paging information, said~~
6   ~~paging information including at least one of a quality of~~
7   ~~service indicator, a type indicator, a source indicator, and a~~
8   ~~destination indicator~~; and
9   operating the ~~first node~~ access node to determine a paging
10 requirement using packet classification based on a header field
11 included in said data message ~~from said received paging~~
12 ~~information a paging requirement, said paging requirement being~~
13 ~~determined as a function of said at least one of a quality of~~
14 ~~service indicator, a type indicator, a source indicator, and a~~
15 ~~destination indicator~~.

1   Claim 2 (currently amended): The method of claim 1,
2   wherein said paging requirement is determined as a function
3   of at least one of a quality of service indicator, a type
4   indicator, a source indicator, and a destination indicator; and
5   wherein said access node is a base station, the method
6   further comprising:
7   operating said ~~first node~~ access node to allocate a paging
8   transmission resource for transmitting a page as a function of
9   the determined paging requirement, at least some of said
10 plurality of paging requests having different determined paging
11 requirements resulting in different allocation of access node
12 resources.

1   Claim 3 (currently amended): The method of claim 2, further
2   comprising:

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3   operating said <u>access node</u> ~~first node~~ to transmit a page

4   <u>over a wireless communications link</u> using the allocated paging

5   transmission resource.

1   Claim 4 (currently amended): The method of claim 3, wherein

2   said step of transmitting a page includes incorporating into

3   ~~said~~ page information indicating a state of device operation, in

4   which a device to which said page is directed, is to operate

5   after receiving said page.

1   Claim 5 (currently amended): The method of claim 2, further

2   comprising:

3   operating said <u>access node</u> ~~first node~~ to communicate a

4   paging signal to a second node, indicating allocation of a

5   paging transmission resource for use in transmitting a page

6   corresponding to said received <u>data message</u> ~~paging information~~.

1   Claim 6 (currently amended): The method of claim 1, further

2   comprising:

3   operating said <u>access node</u> ~~first node~~ to communicate said

4   determined paging requirement to a second node in a paging

5   request message.

1   Claim 7 (currently amended): The method of claim 6, wherein

2   said page request message includes at least a portion of said

3   received ~~paging information~~ <u>data message</u>.

1   Claim 8 (original): The method of claim 7, wherein said

2   determined paging requirement, indicated in said paging request

3   message, is that said portion be included in a page.

1   Claim 9 (original): The method of claim 6, wherein said

2   determined paging requirement, indicated in said paging request

3   message, is that a page be acknowledged.

1 Claim 10 (original): The method of claim 6, wherein said

2 determined paging requirement, indicated in said paging request

3 message, is a quality of service.

1 Claim 11 (original): The method of claim 10, wherein said

2 quality of service includes a page transmission timing

3 constraint.

1 Claim 12 (original): The method of claim 10, wherein said

2 quality of service is one of a plurality of levels.

1 Claim 13 (original): The method of claim 10, wherein said

2 quality of service requires that a page be transmitted multiple

3 times.

1 Claim 14 (original): The method of claim 10, wherein said

2 quality of service requires retransmission of a page at least

3 once in the absence of an acknowledgment.

1 Claim 15 (original): The method of claim 14, further

2 comprising:

3   operating the second node to cause said re-transmission of

4 said page to be into a geographic area larger than an initial

5 transmission area of said page.

1 Claim 16 (original): The method of claim 6,

2   wherein said determined paging requirement, indicated in

3 said paging request message, is a quality of service level; and

4   wherein said page request message includes paging resource

5 allocation information indicating a fraction of a paging

6 resource to be allocated by said second node to pages having

7 said quality of service level, the method further comprising:

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8   operating the second node to allocate said fraction of said

9   paging resource to pages having a quality of service level

10   indicated in said paging request message.

1   Claim 17 (original): The method of claim 6, further comprising:

2   operating said second node to allocate a paging

3   transmission resource for transmitting a page, as a function of

4   said determined paging requirement, indicated in said paging

5   request message.

1   Claim 18 (original): The method of claim 17, further

2   comprising:

3   operating said second node to transmit a page using the

4   allocated paging transmission resource.

1   Claim 19 (currently amended): The method of claim 17, further

2   comprising: /

3   operating said second node to communicate a paging signal

4   to a third node, indicating allocation of a paging transmission

5   resource for use in transmitting a page corresponding to said

6   ~~paging information~~ data message.

Claims 20-26 (canceled)

1   Claim 27 (currently amended): A communications system

2   comprising:

3   a base station ~~first node~~ including:

4   i)   means for receiving a data message directed to an end node

5   ~~paging information, said paging information including at least~~

6   ~~one of a quality of service indicator, a type indicator, a~~

7   ~~source indicator, and a destination indicator~~; and

8   ii) means for determining a paging requirement using packet

9   classification based on a header field included in said data

10   message ~~from said received paging information a paging~~

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11   ~~requirement~~, said paging requirement being determined as a

12   function of ~~said~~ at least one of a quality of service indicator,

13   a type indicator, a source indicator, and a destination

14   indicator.

1   Claim 28 (currently amended): The system of claim 27, wherein

2   said <u>base station</u> ~~first node~~, further comprises:

3   means for allocating a paging transmission resource for

4   transmitting a page as a function of a determined paging

5   requirement.

1   Claim 29 (currently amended): The system of claim 28, wherein

2   said ~~first node~~ <u>base station</u> further includes a radio

3   transmitter for ~~transmit~~ <u>transmitting</u> a page using the allocated

4   paging transmission resource.

1   Claim 30 (currently amended): The system of claim 29, wherein

2   said ~~first node~~ <u>base station</u> further includes:

3   means for generating a paging request message including

4   information indicating said determined paging requirement; and

5   means for transmitting said paging request message to

6   another node.

1   Claim 31 (currently amended): The system of claim 30, wherein

2   said page request message includes at least a portion of said

3   received ~~paging information~~ <u>data message</u> and wherein said

4   determined paging requirement, indicated in said paging request

5   message, is that said portion be included in a page.

1   Claim 32 (original): The system of claim 30, wherein said

2   determined paging requirement, indicated in said paging request

3   message, is that a page be acknowledged.

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1   Claim 33 (original): The system of claim 30, wherein said
2   determined paging requirement, indicated in said paging request
3   message, is a quality of service requirement.

1   Claim 34 (original): The system of claim 30, further
2   comprising:
3   a second node, said second node including:
4   i) means for receiving said paging request message;
5   ii) means for allocating at least one paging resource as a
6   function of paging requirement information included in a
7   received paging request message; and
8   iii) means for transmitting a page to a mobile node using
9   the at least one allocated paging resource.

1   Claim 35 (new): A communications method, the method comprising:
2   servicing a plurality of different paging requests by
3   allocating different amounts of a paging transmission resource
4   to different paging requests, said paging transmission resource
5   being one of transmission power, bandwidth, frequency, and
6   transmission time slots; and
7   transmitting a page corresponding to one of said plurality
8   of different paging requests over a wireless communication link
9   using the amount of said paging transmission resource allocated
10 to said one of said plurality of different paging requests.

1   Claim 36 (new): The method of claim 35, wherein said servicing
2   and transmitting steps are performed by a base station.

1   Claim 37 (new): The method of claim 35, wherein said paging
2   transmission resource is bandwidth.

1   Claim 38 (new): The method of claim 35, wherein said paging
2   transmission resource is frequency.

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1   Claim 39 (new):   The method of claim 35, wherein said paging
2   transmission resource is timeslots.

1   Claim 40 (new):   The method of claim 35, wherein said paging
2   transmission resource is transmission power.

1   Claim 41 (new):   The method of claim 35, wherein allocating
2   different amounts of a paging transmission resource includes
3   allocating a minimum fraction of paging channel capacity to a
4   group of paging requests having a common quality of service
5   indicator.

1   Claim 42 (new):   A method of operating an access node, the
2   method comprising:
3   allocating a minimum fraction of paging channel capacity to
4   a group of paging requests having a common quality of service
5   indicator; and
6   transmitting a page corresponding to one of the paging
7   requests in said group over a wireless communication link.

1   Claim 43(new):   A method of operating an access node, the method
2   comprising:
3   determining an ordering in which pages corresponding to a
4   plurality of paging requests are transmitted based on a time
5   constraint requirement associated with one of said plurality of
6   paging requests; and
7   transmitting a page corresponding to said one of the paging
8   requests over a wireless communications link.

1   Claim 44 (new):   The method of claim 43, wherein said time
2   constraint requirement is a maximum latency.

1   Claim 45 (new):   The method of claim 43, wherein said step of
2   transmitting a page includes transmitting said page

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3   corresponding to said one of the paging requests prior to

4   transmitting a page corresponding to a previously received

5   paging request.